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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,857	01/31/2001	Manabu Hiraoka	000348-251	2103

7590

06/20/2003

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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 06/20/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/772,857

Applicant(s)

HIRAOKA ET AL.

Examiner

Ngoc-Yen M. Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Atobe et al (6,563,011).

Atobe '011 discloses a process for decomposing fluorine compounds, comprising contacting a reactive agent with a fluorine compound at a temperature of 200°C or more, wherein said reactive agent comprises alumina, carbonate of Mg, Ca, Sr or Ba and at least one oxide of a metal selected from the group consisting of Cu, Sn, Ni, Co, Cr, Mo, W, and V (note claim 1). The fluorine compounds can be a perfluorocarbon (note claim 6).

As shown in Figure 1, the apparatus of Atobe '011 comprises section 12 filled with reactive agent, line 1 for feeding fluorine compound gas, line 16 for discharging the treated gas, heating means 11.

The process, reactive agent and apparatus of Atobe '011 anticipate the claimed process, reactant and apparatus.

Art Unit: 1754

Claims 2-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Rossin '291.

Rossin '291 discloses a process for decomposing perfluoroalkanes using a catalyst composition consisting essentially of aluminum oxide, wherein said aluminum oxide is stabilized , with an element selected from the group consisting of barium, calcium, cerium, chromium, cobalt, iron, lanthanum, phosphorus, magnesium, nickel, silicon, titanium, yttrium, and zirconium (note paragraph bridging columns 2-3).

In Example IV, a magnesium-aluminum oxide catalyst composition is disclosed (note column 7). The calcination temperature of 535°C would convert the magnesium to magnesium oxide.

For the preamble, it is considered as an intended use and is given little weight.

The composition as disclosed in Rossin '291 anticipates the claimed product.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz et al (6,110,436).

Scholz '436 discloses a process for removing fluorinated compounds such as perfluorinated hydrocarbons from a gas stream by passing the gas stream through a

Art Unit: 1754

solid sorbent, wherein the solid sorbent comprises gamma-alumina (note claim 1). The sorbent is heated to a temperature at most 600°C. This fairly teaches the heating means as required in the instant claim 4.

The alumina can be doped with metals of groups Ia, IIa, IVa, Ib, IIb, IVb, VIb, VIIb, and VIIIb. The sorbent can also contains oxides and other compounds of these metals (note column 3, lines 42-45). Thus, Scholz '436 fairly suggests that the alumina sorbent can further contain magnesium oxide (group IIa metal oxide).

The number of possible dopants disclosed in Scholz '436 is too large for anticipation.

It would have been obvious to one skilled in the art to select any combination among the specifically disclosed compounds, Merck & Co. Inc. v. Biocraft Laboratory Inc. 10 USPQ 1846.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (703) 308-2536. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Art Unit: 1754

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Ngoc-Yen M. Nguyen  
Primary Examiner  
Art Unit 1754

nmn  
June 20, 2003